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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/785,204 | 02/20/2001 | Mari Saito | 203391US6 | 3961 |

22850 7590 07/06/2011

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| EXAMINER | |
|---|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 2165 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 07/06/2011 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/785,204 | SAITO ET AL. | |
| | Examiner | Art Unit | |
| | CHRISTYANN PULLIAM | 2165 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *25 April 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1. Claims 1-20 are pending. Claims 1, 7-9, 15-16 are currently amended. Claims 2-5, 10-14, 17-20 are previously presented. Claim 6 is original. Claim 21 is canceled.

2. Prior art rejections remain. Therefore, this action is FINAL.

### *Claim Objections*

3. Claim 8 is objected to because of the following informalities: please add "non-transitory" before "computer-readable medium" like what was done to claim 16. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 4-6 and 19-20 re rejected under 35 U.S.C. 103(1) as being anticipated by Rhodes, Bradley and Thad Starner, *Remembrance Agent: A continuously running*

*automated information retrieval* system (1996) (hereinafter Rhodes) in view of Barrera et al., U.S. Patent No. 6567800 (hereinafter Barrera) in view of Widyantoro, Dwi et al., *An Adaptive Algorithm for Learning Changes in User Interests*, CIKM '99, ACM 1999 (hereinafter Widyantoro) in further view of Copperman et al., U.S. PGPub. No. 2004/0024739 (priority to 1999) (hereinafter Copperman).

As for Claim 1, Rhodes teaches:

an event occurrence detection device configured to detect an occurrence of an event (See e.g. Rhodes – page 122, col. 1 – Abstract and first full paragraph - current situation, reading email, change when start editing file; page 123 Design Issues – continuous and can explicitly request);

an extraction device configured to extract attribute information and a keyword from a first document corresponding to the event (See e.g. Rhodes – pages 122-123, Abstract and first full paragraph and Implementation section – query for related info created based on current document), the attribute information and the keyword being extracted from different portions of the first document (See e.g. Rhodes – keywords come from text of email, but attributes come from to and from fields of the email, these are different portions - pages 122, 2nd column -123 1st column);

a search device configured to search a database using the extracted attribute information and the extracted keyword to retrieve a second document having related matching attribute information having similarity to the attribute information extracted from the first document … the second document containing the extracted keyword (See e.g. Rhodes – pages 122-123, first paragraph of The Remembrance Agent and the

Implementation section – recommended related documents are listed, similarity based on keywords and filename, owner, date etc.); and

a display control device configured to display associated information corresponding to the second document (See e.g. Rhodes - Implementation section – front end displays suggestions),

wherein the extraction device is configured to extract a plurality of keywords from the first document (See e.g. Rhodes – pages 122, 2nd column -123 1st column, multiple words extracted from current document, can even be entire document or just last 50 words or last ten words);

Rhodes teaches similarity between documents based on attributes or keywords but does not expressly teach the second document needing to have both the keyword and attribute. This limitation basically requires a Boolean query with two elements (computer AND Smith), where Smith is the creator of the file and computer is the keyword. Similarly, a category and keyword would fulfill this requirement. However, Barrera teaches to retrieve a second document having related matching attribute information having similarity to the attribute information extracted from the first document and the second document containing the extracted keyword (See e.g. Barrera – Abstract, Figure 4 (search area and language are attributes and then can also add keywords, Figures 6-10 – category and keyword content search, col. 2, line 55- col. 3, line 10).

Rhodes and Barrera are from the analogous art of information retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was made

having the teachings of Rhodes and Barrera to have combined Rhodes and Barrera. The motivation to combine Rhodes and Barrera is to increase the accuracy of the search results. Both Rhodes and Barrera index data and search it. Rhodes teaches extracting data from a current document and finding a related document using the data extracted from the current document. Rhodes does not detail how it balancing multiple keywords and attributes during the search. Barrera adds details about the use of a category plus keywords where the second document retrieved needs to meet both requirements. Barrera also allows the search to be limited to a search area like an intranet or the web, which would deal with searching the attributes, and then the user can also add keywords to that search area. Allowing users to use categories as well as keywords decreases the amount of irrelevant information returned (See e.g. Barrera – col. 2, line 35-col. 3, line 10). Therefore, it would have been obvious to one skilled in the art to combine Rhodes and Barrera.

Rhodes does not expressly teach the search device is configured to extract the keyword from the plurality of keywords when both a corresponding keyword weight of the keyword was less than a predetermined threshold during a first predetermined time period prior to a time of the extraction, and the corresponding keyword weight was also greater than a predetermined threshold during a second predetermined time period prior to extraction. However, Widyantoro teaches the search device is configured to extract the keyword from the plurality of keywords when both a corresponding keyword weight of the keyword was … during a first predetermined time period prior to a time of the extraction, and the corresponding keyword weight was also greater than a

predetermined threshold during a second predetermined time period prior to extraction (See e.g. Widyantoro – page 408-408, sections 3.3.3 and 3.3.4 - two weights for two predetermined time periods prior to extraction - short term interest weight and long term interest weight, page 405, col. 2, three descriptor scheme including long term interest and short term interests, page 406, col. 2 – page 407, col. 1, TD-IDF includes keywords in document considering the collection as well, m highest weighted terms are kept as keywords, current weight based on multiple factors, category includes keywords and weights based on those multiple factors, three weights used - page 407, col. 2, number 2, three formulas for each weight given, short and long term weights).

Rhodes and Widyantoro are from the analogous art of information retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Rhodes and Widyantoro to have combined Rhodes and Widyantoro. The motivation to combine Rhodes and Widyantoro is to increase the accuracy of the search results. Both Rhodes and Widyantoro index data and search it. Rhodes teaches extracting data from a current document and finding a related document using the data extracted from the current document. Rhodes does not detail how it balancing multiple keywords and attributes during the search. Widyantoro adds details about the use of a category plus keywords with multiple weights to account for user feedback and actions over time. The dynamic nature of Widyantoro increases the chance that the data returned is what the user is interested in (See e.g. Widyantoro - page 405, Abstract and col. 2). Therefore, it would have been obvious to one skilled in the art to combine Rhodes and Widyantoro.

Rhodes does not expressly teach when both a corresponding keyword weight of the keyword was less than a first predetermined threshold …, and the corresponding keyword weight was also greater than a second predetermined threshold. However, Copperman teaches when both a corresponding keyword weight of the keyword was less than a first predetermined threshold …, and the corresponding keyword weight was also greater than a second predetermined threshold (See e.g. Copperman – paragraph [0053] – if weight greater than predetermined threshold, if weight below predetermined threshold and [0143] – multiple thresholds).

Rhodes and Copperman are from the analogous art of information retrieval and management. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Rhodes by the teaching of Copperman in order to increase the precision of Rhodes. Rhodes determines similarity of documents based on frequency of words. Copperman adds details about weighting the words based on frequency and similarity and compares the weights to thresholds. Copperman also adds ordering of the terms to make the system more efficient. Therefore, it would have been obvious to one skilled in the art to combine Copperman and Rhodes.

As for Claim 19, Rhodes as modified by Barrera and Widyantoro and Copperman teaches parent Claim 1. Rhodes also considers words used in queries to the help system (See e.g. Rhodes – pages 123-124 – Design issues – user can expressly ask for help). Rhodes also teaches determining word frequency in the query document and

the reference documents (See e.g. Rhodes – page 122 Implementation). Widyantoro also teaches the information processing apparatus further comprising,

a selection device for selecting an important word from among words contained in said first document (See e.g. Widyantoro – page 406, col. 2 – m highest words),

an acquisition device configured to acquire said associated information by using said important word selected by said selection device as said keyword (See e.g. Widyantoro – page 407-408, section 3.2, section 3.3.1).

As for Claim 4, Rhodes as modified by Barrera and Widyantoro and Copperman teaches parent Claims 1 and 19. Widyantoro wherein said acquisition device acquires, in a predetermined timed relation, said associated information related to said important word selected by said selection device (See e.g. Widyantoro – short term and long term interest weights are timed relations – page 405, col. 2, page 407, col. 2, page 408, col. 2).

As for Claim 20, Rhodes as modified by Barrera and Widyantoro and Copperman teaches parent Claim 1. Rhodes teaches pre-indexing data (See e.g. Rhodes page 122, col. 2). Widyantoro more expressly teaches a database construction device configured to construct the database by use of at least one of said attribute information extracted by said extraction device and said associated information (See e.g. Widyantoro- page 406, col. 2- page 407, col. 1, keywords, weights, categories are saved).

As for Claim 5, Rhodes as modified by Barrera and Widyantoro and Copperman teaches parent claims 1 and 20. Rhodes teaches pre-indexing data nightly (See e.g. Rhodes page 122, col. 2). Widyantoro also teaches further comprising: update means for updating said database constructed by said database construction device when an update condition is satisfied (See e.g. Widyantoro – page 408, col. 1 – updating vectors and weights).

As for Claim 6, Rhodes as modified by Barrera and Widyantoro and Copperman teaches parent claims 1 and 20 and 5. Widyantoro also teaches wherein said update condition can be set by a user (See e.g. Widyantoro – page 408 - updating vectors and weights, user feedback, page409, top of col. 1, update from user's preferences).

6. Claims 2-3 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes in view of Barrera in view of Widyantoro and Copperman, in further view of Shaffer et al., U.S. Patent No. 6,094,681 (hereinafter Shaffer) (also cited in prior actions).

As for Claim 2, Rhodes as modified by Barrera and Widyantoro and Copperman teaches parent Claim 1. Rhodes teaches many different events including reading email and editing a file (See e.g. Rhodes – page 122 – first paragraph of The Remembrance Agent section). Rhodes does not expressly teach the event as detecting sending,

receiving, or editing of an electronic mail. However, Shaffer teaches wherein said event occurrence detection device detects sending, receiving, or editing of an electronic mail as said event (See e.g. Shaffer column 3, lines 9-11, and column 5, lines 34-59, and Abstract - e-mail).

Rhodes and Shaffer are from the analogous art of event detection and analysis. It would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Rhodes and Shaffer to have combined Rhodes and Shaffer. The motivation to combine Rhodes and Shaffer is include the details about the recognition of more events. Shaffer adds details about the email interaction to the list of events that can be detected and analyzed by both systems. Therefore, it would have been obvious to one skilled in the art to combine Rhodes and Shaffer.

As for Claim 3, Rhodes as modified by Barrera and Widyantoro and Copperman and Shaffer teaches parent Claims 1 and 19. Shaffer also teaches wherein said acquisition device acquires a title and a URL of a Web page containing said important word as the associated information (See e.g. Shaffer column 6, lines 35-59, and column 6, lines 13-22).

Rhodes and Shaffer are from the analogous art of event detection and analysis. It would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Rhodes and Shaffer to have combined Rhodes and Shaffer. The motivation to combine Rhodes and Shaffer is include the details about the recognition of more events. Shaffer adds details about the URL interaction to the

source of keywords analyzed by both systems. Therefore, it would have been obvious to one skilled in the art to combine Rhodes and Shaffer.

As for Claim 17, Rhodes as modified by Barrera and Widyantoro and Copperman teaches parent Claim 1. Rhodes teaching pre-indexing (See e.g. page 122, col. 2), but does not expressly detail grouping. However, Shaffer more clearly teaches further comprising: a grouping device configured to group said existing information into a group of existing information based upon attribute information of said existing information (See e.g. Shaffer column 3, lines 48-64, also see Shaffer column 4, lines 11-20), wherein said acquisition device acquires the associated information related to said group of existing information made by said grouping device as said existing information (See e.g. Shaffer column 8, lines 26-30, also see Shaffer column 8, lines 56-67, and Shaffer column 9, lines 28), said search device searches for said group of existing information as said existing information having similarity to information corresponding to the present event detected by the event occurrence detection device (See e.g. Shaffer column 3, lines 48-64), and the display control device controls displaying of said associated information related to said group of existing information as said existing information retrieved by said search device (See e.g. Shaffer column 2, lines 60-67, and Shaffer column 3, lines 1-11).

Rhodes and Shaffer are from the analogous art of event detection and analysis. It would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Rhodes and Shaffer to have combined Rhodes and

Shaffer. The motivation to combine Rhodes and Shaffer is details the keyword analysis done to correlated events. Rhodes says that is uses words to make inferences about events. However, Shaffer fills in the details of the common keyword frequency evaluation that can be done as part of the event analysis. Therefore, it would have been obvious to one skilled in the art to combine Rhodes and Shaffer.

As for Claim 18, Rhodes as modified by Barrera and Widyantoro and Copperman and Shaffer teaches parent claims 1 and 17. Rhodes teaches keywords (See e.g. Rhodes page 122 – SMART info retrieval), but does not expressly teach weighting keywords. Widyantoro also teaches:

a weight calculation device configured to calculate the weight of key words contained in each said group of existing information (See e.g. Widyantoro – category, short term and long term interest weights are timed relations – page 405, col. 2, page 406, col. 2, page 407, col. 2, page 408, col. 2),

a selection device configured to select an important word among said key words based upon said weight of key words (See e.g. Widyantoro – m highest weighted – page 405, col. 2, page 406, col. 2, page 407, col. 2, page 408, col. 2

wherein said acquisition device acquires said associated information related to said group of existing information using said important word selected by said selection device (See e.g. Widyantoro – category, short term and long term interest weights are timed relations – page 405, col. 2, page 406, col. 2, page 407, col. 2, page 408, col. 2).

7. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hazlehurst et al., U.S. Patent No. 5974412 (hereinafter Hazlehurst) (also cited in prior actions) in view of Shaffer et al., U.S. Patent No. 6094681 (hereinafter Shaffer) (also cited in prior actions) in further view of Copperman et al., U.S. PGPub. No. 2004/0024739 (priority to 1999) (hereinafter Copperman) (also cited in prior actions).

As for Claims 7 and 8, Hazlehurst teaches:

An information processing method/instructions:

extracting attribute information from a plurality of existing text files (See e.g. Hazlehurst- col. 2, lines 1-15, col. 4, lines 48-60, col. 7, lines 7-51 col. 9, lines 7-41- author, source, and other meta-features);

extracting existing keywords from among words contained in said plurality of existing text files (See e.g. Hazlehurst- col. 7, lines 7-51, slurpees, col. 8, lines 15-31, col. 9, lines 7-41);

computing weights for said existing keywords based on use of occurrence frequency in each text file and distribution over the plurality of existing text files (See e.g. Hazlehurst- col. 9, lines 7-41 weighting based on word frequency in document), … and acquiring associated information for each important keyword of the existing keywords having a weight higher than a predetermined threshold (See e.g. Hazlehurst- col. 7, line 7- col. 8, line 12-31, col. 9, lines 7-41, col. 19, lines 35-60, col. 21, lines 40-52, col. 24, line 50- col. 25, line 14, claim 44), the associated information being obtained by accessing a search engine on the Internet using each important keyword as a search

term (See e.g. Hazlehurst – liaisons – Figures 4, 8, 14a, Abstract, col. 7, line 53- col. 8, line 4, col. 20, line 39- col. 21, line 30);

constructing a database by associating each important word with at least one of said attribute information extracted in the extracting step and said associated information acquired in the acquiring step (See e.g. Hazlehurst- col. 7, lines 7-60 – storage system and indices, col. 8, lines col. 8, lines 15-31, col. 9, lines 7-41 – index and master dictionary);

Hazlehurst uses database to correlate documents, users and objects, as well as events and feedback. Hazlehurst teaches world events (See e.g. Hazlehurst – col. 14, lines 35-62) but does not expressly teach user interactions as events. However Shaffer more clearly teaches:

detecting an occurrence of said event (See e.g. Shaffer column 2, lines 24-37);

detecting an event keyword from said text file corresponding to said event detected in the event occurrence detecting step (See e.g. Shaffer column 3, lines 48-64);

searching said database constructed in the database constructing step to retrieve said associated information corresponding to said event keyword detected in the event keyword detecting step (See e.g. Shaffer column 2, lines 38-59); and

controlling displaying of said associated information retrieved in the searching step (See e.g. Shaffer column 2, lines 60-67, and Shaffer column 3, lines 1-11).

Hazlehurst and Shaffer are from the analogous art of information retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was

made to have modified Shaffer by the teaching of Hazlehurst. Hazlehurst details ways in which keywords can be weighted which would add a higher level of precision to the system of Shaffer. Hazlehurst also gives examples of the ways that the data used by all the system can be stored. Therefore, it would have been obvious to one skilled in the art to combine Shaffer and Hazlehurst.

Hazlehurst teaches computing weights for said existing keywords based on use of occurrence frequency in each text file but does not expressly teach considering the distribution over the plurality of existing text files and sorting in a time-dependent manner, sorting the computed weights in a time dependent manner and determining important keywords as those keywords of the extract keywords having a computer weight higher than a predetermined threshold. However, Copperman teaches computing weights for said existing keywords based on use of occurrence frequency in each text file and distribution over the plurality of existing text files (See e.g. Copperman – paragraphs [0082], [0122], [0124], [0157-0159] – frequency, including across the corpus document set, number of documents words appears in, frequency statistics for the collection),

sorting the plurality of existing files in a time-dependent manner (See e.g. Copperman – containers are created by date ranges, dates – paragraphs [0058], [0157], [0172], claims 21 and 49, Figure 19),

sorting the computed weights (See e.g. Copperman – paragraph [0053] – order by weights) in a time dependent manner (See e.g. Copperman - paragraphs [0058], [0157], [0172], claims 21 and 49, Figure 19),

determining important keywords as those keywords of the extract keywords having a computer weight higher than a predetermined threshold (See e.g. Copperman – important terms – paragraphs [0153], [0124], [0157-159] – weight exceeds threshold, important terms), ... in descending order of the computer weight of the important keyword (See e.g. Copperman – paragraphs [0053], [0122] – order by weight).

Hazlehurst and Copperman are from the analogous art of information retrieval and management. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hazlehurst by the teaching of Copperman in order to increase the precision of Hazlehurst. Hazlehurst details ways in which keywords can be weighted. Hazlehurst also gives examples of the ways that the data used by the system can be stored. Copperman alters the storage by increasing the detail of the system with taxonomy tags. Copperman also adds ordering of the terms to make the system more efficient. Therefore, it would have been obvious to one skilled in the art to combine Copperman and Hazlehurst.

8. Claims 9 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer (also cited in prior actions and above) in view of Lachman, Richard, *Animist Interface: Experiments in Mapping Character Animation to Computer Interface* (1997) (hereinafter Lachman) (also cited in prior actions) in view of Widyantoro, Dwi et al., *An Adaptive Algorithm for Learning Changes in User Interests*, CIKM '99, ACM 1999 (hereinafter Widyantoro) in further view of Copperman et al., U.S. PGPub. No. 2004/0024739 (priority to 1999) (hereinafter Copperman).

As for Claim 9, Shaffer teaches:

a processing detection device configured to detect, as an event, predetermined processing of said predetermined application program (See e.g. Shaffer column 4, lines 10-5, column 6, lines 56-59);

a keyword detection device configured to detect a plurality of keywords from said text file processed by said predetermined application program corresponding to said event detected by said processing detection device (See e.g. Shaffer column 3, lines 48-64, column 4, lines 11-20);

… by searching a database for a previously processed existing file corresponding to the important keyword (See e.g. Shaffer column 2, lines 38-59);

an input device configured to input a command (See e.g. Shaffer column 10, lines 31-33);

a command processing device configured to execute, in response to said command inputted by said input device, processing on said associated information (See e.g. Shaffer column 10, lines 31-40); and

a display control device configured to display, in response to said event detected by said processing detection device (See e.g. Shaffer column 2, lines 60-67, and Shaffer column 3, lines 1-11).

Shaffer does not expressly teach an animated agent. However, Lachman teaches:

an information processing apparatus for displaying an animated agent on a display device and for displaying associated information related to a text file processed by a predetermined application program (See e.g. Lachman – pages 11-12 – Agents with Faces has nine states for the agent to convey “Working” or “Confused” or “Unsure” and Microsoft Bob and Office Assistant – animates to show the machine following user instructions and proactively offers tips; further for ordinary tips a light bulb appears but for more important tips it gestures wildly; pages 36-39 Maitre-D Interface);

said animated agent onto said display device and changing a manner of displaying said character animated agent in response to said command inputted by said input device (See e.g. Lachman – pages 11-12 – Agents with Faces has nine states for the agent to convey “Working” or “Confused” or “Unsure” and Microsoft Bob and Office Assistant – animates to show the machine following user instructions and proactively offers tips; further for ordinary tips a light bulb appears but for more important tips it gestures wildly; pages 36-39 Maitre-D Interface).

Lachman and Shaffer are from the analogous art of event detection and analysis. It would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Lachman and Shaffer to have combined Lachman and Shaffer. The motivation to combine Lachman and Shaffer is detail the animated assistant that can be added to the systems of Shaffer. Lachman details the various prior systems of animated assistants. Therefore, it would have been obvious to one skilled in the art to combine Shaffer and Lachman.

Shaffer teaches key word searches. Shaffer does not expressly teaches means for computing weights for said keywords based on use of occurrence frequency in the text file, and searching for said associated information for each important keyword of the keywords having a weight higher than a predetermined threshold. However, Widyantoro teaches means for computing weights for said keywords based on use of occurrence frequency in the text file, when both a corresponding keyword weight of the keyword was .... during a first predetermined time period prior to a time of the extraction, and the corresponding keyword weight was also greater than a predetermined threshold during a second predetermined time period prior to extraction (See e.g. Widyantoro – page 408-408, sections 3.3.3 and 3.3.4 - two weights for two predetermined time periods prior to extraction - short term interest weight and long term interest weight, page 405, col. 2, three descriptor scheme including long term interest and short term interests, page 406, col. 2 – page 407, col. 1, TD-IDF includes keywords in document considering the collection as well, m highest weighted terms are kept as keywords, current weight based on multiple factors, category includes keywords and weights based on those multiple factors, three weights used - page 407, col. 2, number 2, three formulas for each weight given, short and long term weights), and searching for said associated information for the important keyword (See e.g. Widyantoro – page 406, col. 2 – TD-IDF, highest m words, page 407 – scores for documents, category, profile of interests);

selecting an important keyword from a plurality of keywords based on changes in corresponding keyword weights of the plurality of keywords during two different

predetermined time periods prior to a time of the selection (See e.g. Widyantoro—short term and long term weights – page 407, page 408 col. 2).

Shaffer and Widyantoro are from the analogous art of information retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Shaffer and Widyantoro to have combined Rhodes and Widyantoro. The motivation to combine Shaffer and Widyantoro is to increase the accuracy of the search results. Both Shaffer and Widyantoro index data and search it. The dynamic nature of Widyantoro increases the chance that the data returned is what the user is interested in (See e.g. Widyantoro - page 405, Abstract and col. 2). Due to the overlapping subject matter, it would have been obvious to one skilled in the art to combine Shaffer and Widyantoro.

Shaffer does not expressly teach when both a corresponding keyword weight of the keyword was less than a first predetermined threshold …, and the corresponding keyword weight was also greater than a second predetermined threshold. However, Copperman teaches when both a corresponding keyword weight of the keyword was less than a first predetermined threshold …, and the corresponding keyword weight was also greater than a second predetermined threshold (See e.g. Copperman – paragraph [0053] – if weight greater than predetermined threshold, if weight below predetermined threshold and [0143] – multiple thresholds).

Shaffer and Copperman are from the analogous art of information retrieval and management. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Shaffer by the teaching of Copperman in order

to increase the precision of Shaffer. Shaffer teaches keyword searches. Copperman adds details about weighting the words based on frequency and similarity and compares the weights to thresholds. Copperman also adds ordering of the terms to make the system more efficient. Therefore, it would have been obvious to one skilled in the art to combine Copperman and Shaffer.

As for Claim 12, Shaffer as modified by Lachman and Widyantoro and Copperman teach parent Claim 9. Lachman also teaches wherein said command processing device displays, on said display device, said associated information retrieved by said search device in an object form with respect to at least one of movement, storage, and deletion, in response to a display command inputted by said input device (See e.g. Lachman – page 12 – Office Assistant - user instructions like printing, saving, sending email; tips and shortcuts including for closing without saving).

As for Claim 13, Shaffer as modified by Lachman and Widyantoro and Copperman teach parent Claims 9 and 12. Lachman also teaches wherein said command processing device stores said associated information in response to a storage command inputted by said input device and displays a list of the stored associated information onto said display device (See e.g. Lachman – page 12 – Office Assistant – tips and shortcuts).

As for Claim 14, Shaffer as modified by Lachman and Widyantoro and Copperman teach parent Claim 9. Shaffer also teaches wherein said associated information is a URL of a Web page and said command processing device starts a WWW browser so as to access said URL of said Web page as said associated information in response to an access command inputted by said input device (See e.g. Shaffer column 6, lines 13-59).

As for Claims 15 and 16, Shaffer teaches:

detecting, as an event, predetermined processing of said predetermined application program (See e.g. Shaffer column 4, lines 10-5, also see Shaffer column 6, lines 56-59);

detecting a plurality of keywords from said text file processed by said predetermined application program corresponding to said event detected in the processing detecting step (See e.g. Shaffer column 3, lines 48-64, also see Shaffer column 4, lines 11-20);

… searching a database for a previously processed existing file corresponding to the important key word (See e.g. Shaffer column 2, lines 38-59);

executing, in response to a command inputted, processing on said associated information retrieved in the searching step (See e.g. Shaffer column 10, lines 31-40); and

displaying, in response to said event detected in the processing of said detecting step (See e.g. Shaffer column 2, lines 60-67, and Shaffer column 3, lines 1-11).

Shaffer does not expressly teach an animated agent. However, Lachman teaches:

a computer to display an animated agent on a display device and to display associated information related to a text file processed by a predetermined application program (See e.g. Lachman – pages 11-12 – Agents with Faces has nine states for the agent to convey "Working" or "Confused" or "Unsure" and Microsoft Bob and Office Assistant – animates to show the machine following user instructions and proactively offers tips; further for ordinary tips a light bulb appears but for more important tips it gestures wildly; pages 36-39 Maitre-D Interface);

said animated agent onto said display device and changing a manner of displaying said animated agent in response to said command inputted (See e.g. Lachman – pages 11-12 – Agents with Faces has nine states for the agent to convey "Working" or "Confused" or "Unsure" and Microsoft Bob and Office Assistant – animates to show the machine following user instructions and proactively offers tips; further for ordinary tips a light bulb appears but for more important tips it gestures wildly; pages 36-39 Maitre-D Interface).

Lachman and Shaffer are from the analogous art of event detection and analysis. It would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Lachman and Shaffer to have combined Lachman and Shaffer. The motivation to combine Lachman and Shaffer is detail the animated assistant that can be added to the systems of Shaffer. Lachman details the various

prior systems of animated assistants. Therefore, it would have been obvious to one skilled in the art to combine Shaffer and Lachman.

Shaffer teaches key word searches. Shaffer does not expressly teaches means for computing weights for said key words based on use of occurrence frequency in the text file, and searching for said associated information for each important keyword of the keywords having a weight higher than a predetermined threshold. However, Widyantoro teaches means for computing weights for said keywords based on use of occurrence frequency in the text file, when both a corresponding keyword weight of the keyword was …. during a first predetermined time period prior to a time of the extraction, and the corresponding keyword weight was also greater than a predetermined threshold during a second predetermined time period prior to extraction (See e.g. Widyantoro – page 408-408, sections 3.3.3 and 3.3.4 - two weights for two predetermined time periods prior to extraction - short term interest weight and long term interest weight, page 405, col. 2, three descriptor scheme including long term interest and short term interests, page 406, col. 2 – page 407, col. 1, TD-IDF includes keywords in document considering the collection as well, m highest weighted terms are kept as keywords, current weight based on multiple factors, category includes keywords and weights based on those multiple factors, three weights used - page 407, col. 2, number 2, three formulas for each weight given, short and long term weights), and searching for said associated information for the important keyword (See e.g. Widyantoro – page 406, col. 2 – TD-IDF, highest m words, page 407 – scores for documents, category, profile of interests) and searching for said associated information for the important keyword (See e.g.

Widyantoro – page 406, col. 2 – TD-IDF, highest m words, page 407 – scores for documents, category, profile of interests);

selecting an important keyword from a plurality of keywords based on changes in corresponding keyword weights of the plurality of keywords during two different predetermined time periods prior to a time of the selection (See e.g. Widyantoro—short term and long term weights – page 407, page 408 col. 2).

Shaffer and Widyantoro are from the analogous art of information retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Shaffer and Widyantoro to have combined Rhodes and Widyantoro. The motivation to combine Shaffer and Widyantoro is to increase the accuracy of the search results. Both Shaffer and Widyantoro index data and search it. The dynamic nature of Widyantoro increases the chance that the data returned is what the user is interested in (See e.g. Widyantoro - page 405, Abstract and col. 2). Due to the overlapping subject matter, it would have been obvious to one skilled in the art to combine Shaffer and Widyantoro.

Shaffer does not expressly teach when both a corresponding keyword weight of the keyword was less than a first predetermined threshold …, and the corresponding keyword weight was also greater than a second predetermined threshold. However, Copperman teaches when both a corresponding keyword weight of the keyword was less than a first predetermined threshold …, and the corresponding keyword weight was also greater than a second predetermined threshold (See e.g. Copperman – paragraph

[0053] – if weight greater than predetermined threshold, if weight below predetermined threshold and [0143] – multiple thresholds).

Shaffer and Copperman are from the analogous art of information retrieval and management. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Shaffer by the teaching of Copperman in order to increase the precision of Shaffer. Shaffer teaches keyword searches. Copperman adds details about weighting the words based on frequency and similarity and compares the weights to thresholds. Copperman also adds ordering of the terms to make the system more efficient. Therefore, it would have been obvious to one skilled in the art to combine Copperman and Shaffer.

9. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer (also cited in prior actions and above) in view of Lachman, in further view of Widyantoro and Copperman and in further view of Eric Horvitz et al., *The Lumiere Project: Bayesian User Modeling for Inferring the Goals and Needs of Software Users*, Proceedings of the 14th Conference on Uncertainty in Artificial Intelligence, July 1998, pages 256-265 (hereinafter Horvitz) (also cited in prior actions).

As for Claim 10, Shaffer as modified by Lachman and Widyantoro and Copperman teach parent Claim 9. Lachman describes the animated agents providing tips but does not detail the additional displays of text as a script. However, Horvitz

teaches wherein said display control device also displays text information as a script of said character animated agent (See e.g. Horvitz – Figures 7- 11).

The motivation to combine Lachman and Shaffer and Widyantoro is above with Claim 9. Horvitz and Shaffer are from the analogous art of event detection and analysis. It would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Horvitz and Shaffer to have combined Horvitz and Shaffer. The motivation to combine Horvitz and Shaffer is details the keyword analysis done to correlated events. Horvitz provides further details about the help interface that is also described in Lachman. Horvitz and Shaffer both detail inferences that can be made from event detection. Therefore, it would have been obvious to one skilled in the art to combine Horvitz and Shaffer.

As for Claim 11, Shaffer as modified by Lachman and Widyantoro and Copperman and Horvitz teach parent Claims 9-10. Horvitz also teaches further comprising an output device configured to output a voice signal corresponding to said text information displayed by said display control device (Horvitz – sections 3 and 7, Figures 8-11).

***Response to Arguments***

10. Applicant's arguments with respect to claims 1, 9 and 15-16 and their dependents have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments based on the amendments with respect to claims 7-8 and their dependents have been considered but are not persuasive. Additional citations have been provided above to show that the combination of Hazlehurst, Shaffer and Copperman teaches "sorting the computer weights in a time dependent manner". Copperman teaches ordering weights (See e.g. Copperman - paragraph [0053]) as well as the use of time dependent ordering (See e.g. Copperman –containers are created by date ranges, dates – paragraphs [0058], [0157], [0172], claims 21 and 49, Figure 19). Therefore, teaches sorting weights and that the sorts can be time dependent. Accordingly, the combination of Hazlehurst, Shaffer and Copperman teaches the newly added limitation "sorting the computer weights in a time dependent manner".

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTYANN PULLIAM whose telephone number is (571)270-1007. The examiner can normally be reached on M-F 9 am-6 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Neveen Abel-Jalil can be reached on 571-272-4074. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christyann RF Pulliam/
Examiner, Art Unit 2165
June 29, 2011

/Neveen Abel-Jalil/
Supervisory Patent Examiner, Art Unit 2165